SONY

2-659-026-**11** (1)

LCD Monitor

Instructions for Use

CE

LMD-1420MD

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Owner's Record

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____
Serial No. _____

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Dangerously high voltages are present inside the unit. Do not open the cabinet. Refer servicing to qualified personnel only.

In the event of a malfunction or when maintenance is necessary, consult an authorized Sony dealer.

This unit contains substances which can pollute the environment if disposed carelessly. Please contact our nearest representative office or your local environmental office in case of disposal of this unit.

WARNING
THIS APPARATUS MUST BE EARTHED.

FOR CUSTOMERS IN EUROPE

This equipment has been found to comply with limits for a Class B device pursuant to EN60601-1-2. However, if this equipment does cause harmful interference to other devices, which can be determined by turning this equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and other devices.
- Connect the equipment into an outlet on a circuit different from that to which other devices are connected.
- Consult the dealer or an experienced radio/TV technician for help.

For the customers in Canada

This unit has been certified according to Standard CSA C22.2 NO.60601.1.

FOR THE CUSTOMERS IN THE USA

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

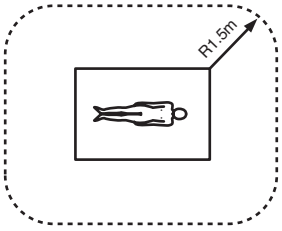
The shielded interface cable recommended in this manual must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

This product contains mercury. Disposal of this product may be regulated if sold in the United States. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance (http://www.eiae.org).

Important safeguards/notices for use in the medical environments

1. All the equipment connected to this unit shall be certified according to Standard IEC60601-1, IEC60950, IEC60065 or other IEC/ISO Standards applicable to the equipment.
2. When this unit is used together with other equipment in the patient area*, the equipment shall be either powered by an isolation transformer or connected via an additional protective earth terminal to system ground unless it is certified according to Standard IEC60601-1 and IEC60601-1-1.

* Patient Area



3. The leakage current could increase when connected to other equipment.
4. The operator should take precautions to avoid touching the rear panel input and output circuitry and the patient at the same time.
5. Model LMD-1420MD is a monitor intended for use in a medical environment to display pictures from cameras or other systems. These models are nonpatient care equipment with respect to the requirement of leakage current.

Caution

When you dispose of the unit or accessories, you must obey the law in the relative area or country and the regulation in the relative hospital.

Symbols on the unit

Symbol	Location	This symbol indicates
	Front	Main power switch.
	Rear	The equipotential terminal which brings the various parts of a system to the same potential.
	Rear	Functional earth terminal
	Front	Key inhibit The setting are locked so that they cannot be changed.

Warning on power connection

Use a proper power cord for your local power supply.

	The United States	Canada	Continental Europe
Plug type	HOSPITAL GRADE	HOSPITAL GRADE	LP-34A
Female end	E41395	LL33182	LS-60
Cord type	E41395-A	LL76662	H05VV-F
Rated Voltage & Current	10A/125V	10A/125V	10A/250V
Safety approval	UL	CSA	VDE

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Precaution

On Safety

- Operate the unit only with a power source as specified in the “Specifications” section.
- A nameplate indicating operating voltage, power consumption, etc., is located on the rear panel.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Do not drop or place heavy objects on the power cord. If the power cord is damaged, turn off the power immediately. It is dangerous to use the unit with a damaged power cord.
- Unplug the unit from the wall outlet if it is not to be used for several days or more.
- Disconnect the power cord from the AC outlet by grasping the plug, not by pulling the cord.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

On Installation

- Allow adequate air circulation to prevent internal heat build-up.
  Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

Handling the LCD Screen

- Bright or dark points of lights (red, blue or green) may appear on the LCD screen. This is not a malfunction. The LCD screen is made with high-precision technology with more than 99.99 % of the picture elements intact. However, some picture elements may not appear intermittently.
- Do not leave the LCD screen facing the sun as it can damage the LCD screen. Take care when you place the unit by a window.
- Do not push or scratch the LCD monitor’s screen. Do not place a heavy object on the LCD monitor’s screen. This may cause the screen to lose uniformity.
- If the unit is used in a cold place, horizontal lines or a residual image may appear on the screen. This is not a malfunction. When the monitor becomes warm, the screen returns to normal.
- If a still picture is displayed for a long time, a residual image may appear. The residual image will eventually disappear.
- The screen and the cabinet become warm during operation. This is not a malfunction.

About the Fluorescent Tube

A specially designed fluorescent tube is installed as the lighting apparatus for this unit. If the LCD screen becomes dark, unstable or does not turn on, consult your Sony dealer.

On Cleaning

To keep the unit looking brand-new, periodically clean it with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleansers since they will damage the cabinet. As a safety precaution, unplug the unit before cleaning it.

On Repacking

Do not throw away the carton and packing materials. They make an ideal container which to transport the unit.

On Mounting on a Rack

Leave 1U space empty above and below the monitor to ensure adequate air circulation or install a fan to maintain the monitor’s performance.

If you have any questions about this unit, contact your authorized Sony dealer.

On Fan Error

The fan for cooling the unit is built in. When the “FAN ERROR” message is displayed, turn off the power and contact an authorized Sony dealer.

Features

The LMD-1420MD is a 14-type, LCD monitor.

Compliance with medical safety standards in America, Canada and Europe

UL60601-1 for America, CSA C22.2 No.60601.1 for Canada and EN 60601-1 for Europe have been obtained for this monitor.
The monitor is designed for use in the medical treatment field, with screen protect panel, etc.

High brightness LCD panel

Because of the monitor's high brightness, high contrast and wide viewing angle technology, it can be used under various lighting conditions.

Rack mount monitors

The LMD-1420MD can be installed in a standard 19-inch rack using an optional rack mounting bracket MB-526.

Monitor stand with tilt function

As the stand with tilt function is equipped normally for the monitor, you can use it easily on the desk top. When you mount the monitor to the rack, remove the stand.

Tally lamp

The green LED lamp is used for the tally lamp. You can check the status of the monitor, controlling the lamp from the external remote.

Two color system available

The monitor can display NTSC and PAL signals by connecting this unit.

Blue only mode

In the blue only mode, an apparent monochrome display is obtained with all three of the R/G/B cathodes driven with a blue signal. This facilitates color saturation and phase adjustments and observation of VCR noise.

Analog RGB/component input connectors

Analog RGB or component signals from video equipment can be input through these connectors.

Y/C input connectors

Y/C signals of the video signal can be input through this connector.

SDI optional input

SDI signals can be available when SDI input adaptor BKM-320D (optional) is attached.

External sync input

When the EXT SYNC button is in the on position, the unit can be operated on the sync signal supplied from an external sync generator.

Automatic termination (connector with ⎓ mark only)

The input connector is terminated internally at 75 ohms when nothing has been connected to the output connector. If a cable is connected to the output connector, the internal terminal is automatically released and the signals input to the input connector are output to the output connector (loop-through).

Select color temperature and gamma mode

You can select the color temperature from among three (high, low and low2) settings and gamma mode from among five settings. You can also adjust the color temperature to the appropriate setting.

Aspect setting

You can set the monitor to 4:3 or 16:9 display mode according to the input video signal.

Scan setting

You can set the display size to -3% under scan or 5% over scan mode.

Key inhibit function

You can inhibit a key, function to prevent misoperation.

Select language display

You can select from seven display languages English, French, German, Spanish, Italian, Japanese and Chinese.

External remote control function

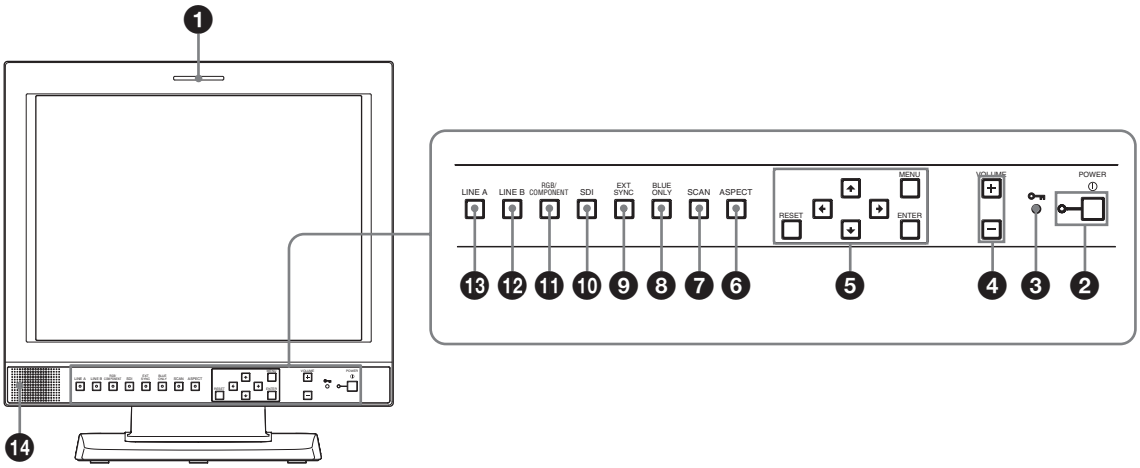
You can directly select the input signal, aspect, etc., by operating the equipment connected to the PARALLEL REMOTE terminal.

Two kinds of ground terminals

Two kinds of ground terminals are built into the monitor to equal the electric potential.

Location and Function of Parts and Controls

Front Panel



❶ Tally lamp
The lamp lights in green when this unit is controlled from the PARALELL REMOTE terminal on the rear panel of the unit.

❷ POWER switch and indicator
Press to turn on the power. The indicator turns on. Press again to turn off the power.

❸ KEY INHIBIT indicator
When the key inhibit function works, the indicator lights.
For the key inhibit function, refer to "KEY INHIBIT menu" on page 18.

❹ VOLUME buttons
Press the + button to increase the volume or the – button to decrease it.

❺ Menu operation buttons
Displays or sets the on-screen menu.

↑/↓/←/→ (arrow) buttons
Select the menu or make various adjustments.

MENU button
Press to display the on-screen menu.
Press again to clear the menu.

RESET button
Resets the value of an item back to the previous value. This button functions when the menu item is adjusted (displayed) on the screen.

ENTER button
Press to confirm a selected item on the menu.

❻ ASPECT select button
Sets the aspect ratio of the picture, 4:3 or 16:9.

❼ SCAN select button
You can change the scan size of the picture. When you press the button, the scan size is changed to normal (5% over scan), under (-3% under scan) or ZOOM set on the SCAN menu (see page 17).

❽ BLUE ONLY button
Press this button to eliminate the red and green signals. Only blue signal is displayed as an apparent monochrome picture on the screen. This facilitates "chroma" and "phase" adjustments and observation of VCR noise.

❾ EXT SYNC (external sync) button
Press to operate the unit on an external sync signal through the EXT SYNC IN connector.
The EXT SYNC button works when the component/ RGB signals are input.

⑩ SDI button
Press to monitor the signal from the OPTION IN connector.

⑪ RGB/COMPONENT button
Press to monitor the signal through the IN (input) connector of the RGB/COMPONENT connectors.

⑫ LINE B button
Press to monitor the signal through the IN (input) connector of the LINE B connectors.

⑬ LINE A button
Press to monitor the signal through the IN (input) connector of the LINE A connectors.

⑭ Speakers
The audio signal which is selected by the input select button on the front panel is output.

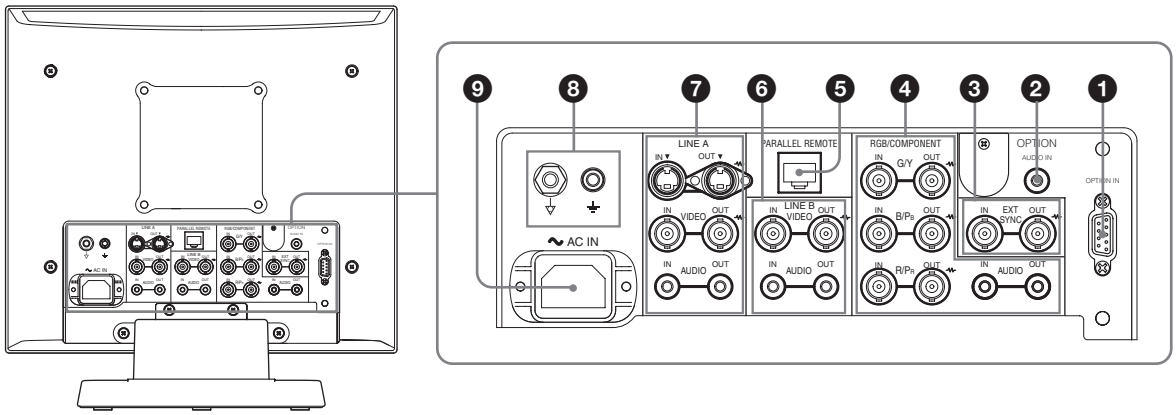
Input Signals and Adjustable/Setting Items

Item	Input signal				
	Video, Y/C	B & W	Component	RGB	SDI
					D1
CONTRAST	○	○	○	○	○
BRIGHT	○	○	○	○	○
CHROMA	○	×	○	×	○
PHASE	○ (NTSC)	×	×	×	×
APERTURE	○	○	○	×	○
COLOR TEMP	○	○	○	○	○
COMP LEVEL*	×	×	○	×	×
NTSC SETUP	○ (NTSC)	○ (480/60I)	×	×	×
GAMMA	○	○	○	○	○
SCAN	○	○	○	○	○
ASPECT	○	○	○	○	○
BLUE ONLY	○	×	○	○	○

* When a component signal (480/60I) is input, this can be switchable.

○ : Adjustable/can be set
× : Not adjustable/cannot be set

Rear Panel



❶ OPTION IN connector (D-sub 9-pin, female)
When optional SDI input adaptor BKM-320D is connected, SDI signals are input.
Press the SDI button to monitor the signal.

Note

Do not install the equipment other than BKM-320D. It causes to damage the unit or the equipment.

❷ OPTION AUDIO IN connector
If the BKM-320D is installed in the OPTION IN connector, input an audio signal into this connector.
Press the SDI button to monitor the audio signal.

❸ EXT SYNC IN/OUT (external sync) connectors (BNC)
Press the EXT SYNC button to use the sync signal through this connector.

IN connector
When this unit operates on an external sync signal, connect the reference signal from a sync generator to this connector.

Note

When inputting a video signal with the jitters, etc. the picture may be disturbed. We recommend using the TBC (time base corrector).

OUT connector
Loop-through output of the IN connector. Connect to the external sync input of video equipment to be synchronized with this unit.
When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the IN connector is output from this connector.

❹ RGB/COMPONENT connectors
Analog RGB signal or component (Y, P_B, P_R) signal input connectors and their loop-through output connectors.
Press the RGB/COMPONENT button on the front panel to monitor the signal input through these connectors.

G/Y, B/P_B, R/P_R IN/OUT (BNC)
These are the input/output connectors for an analog RGB and a component (Y, P_B, P_R) signal. Unless an external sync signal is input, the monitor is synchronized with the sync signal contained in the G/Y signal.

AUDIO IN/OUT (RCA pin)
When using an analog RGB or a component signal as a video signal, use these jacks for the input/output of an audio signal. Connect them to the audio input/output jacks on equipment such as a VCR.

❺ PARALLEL REMOTE terminal (modular connector)
Forms a parallel switch and controls the monitor externally.
For safety, do not connect the connector for peripheral device wiring that might have excessive voltage to this modular connector.

For details on the pin assignment and factory setting function assigned to each pin, see page 20.

❻ LINE B connectors
Line input connectors for composite video and audio signals and their loop-through output connectors.
Press the LINE B button on the front panel to monitor the signal input through these connectors.

VIDEO IN/OUT (BNC)

These are the input/output connectors for a composite video signal. Connect them to the composite video input/output connectors on equipment such as a VCR, video camera, or another monitor.

AUDIO IN/OUT (RCA pin)

These are the input/output jacks for an audio signal. Connect them to the audio input/output jacks on equipment such as a VCR.

❼ LINE A connectors

Line input connectors for Y/C separate, composite video and audio signals and their loop-through output connectors.
Press the LINE A button on the front panel to monitor the input signal through these connectors.
If you input signals to both Y/C IN and VIDEO IN, the signal input to the Y/C IN is selected.

Y/C IN/OUT (4-pin mini-DIN)

These are the input/output connectors for a Y/C separate signal. Connect them to the Y/C separate input/output connectors on equipment such as a VCR, video camera, or another monitor.

VIDEO IN/OUT (BNC)

These are the input/output connectors for a composite video signal. Connect them to the composite video input/output connectors on equipment such as a VCR, video camera, or another monitor.

AUDIO IN/OUT (RCA pin)

These are the input/output jacks for an audio signal. Connect them to the audio input/output jacks on equipment such as a VCR.

❽ ⏚/⏚ (Equipotential/Function Earth) terminal

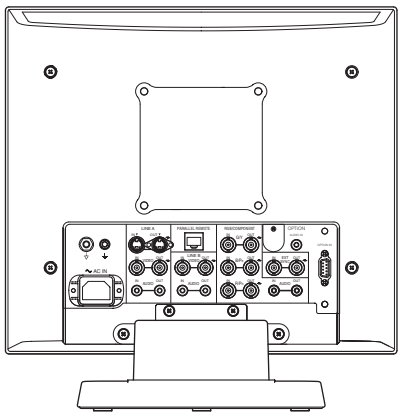
⏚ (equipotential) terminal
Connects the equipotential plug.
⏚ (function earth) terminal
Connects the earth cable.

❾ AC IN socket

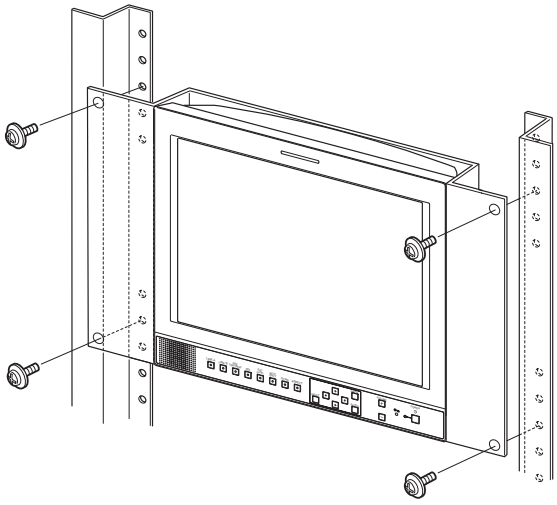
Connect the supplied AC power cord.

Installing to the Rack

1 Remove the screws (4) to remove the stand.



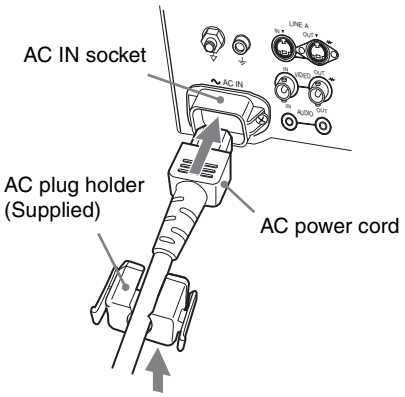
2 Attach the unit to the rack after attaching the mounting bracket.



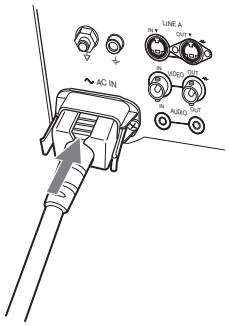
Connecting the AC Power Cord

Connect the supplied AC power cord as illustrated.

1 Plug the AC power cord into the AC IN socket on the rear panel. Then, attach the AC plug holder (supplied) to the AC power cord.



2 Slide the AC plug holder over the cord until it locks.

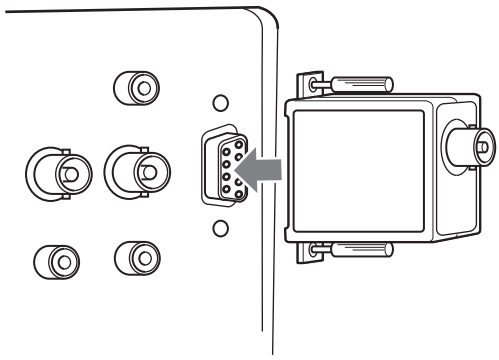


To remove the AC power cord

Pull out the AC plug holder while pressing the lock levers.

Attaching the Input Adaptor

Before attaching the input adaptor, disconnect the power cord.



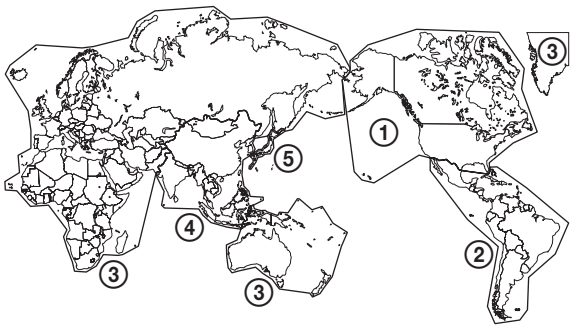
Note

Do not install the equipment other than BKM-320D. It causes to damage the unit or the equipment.

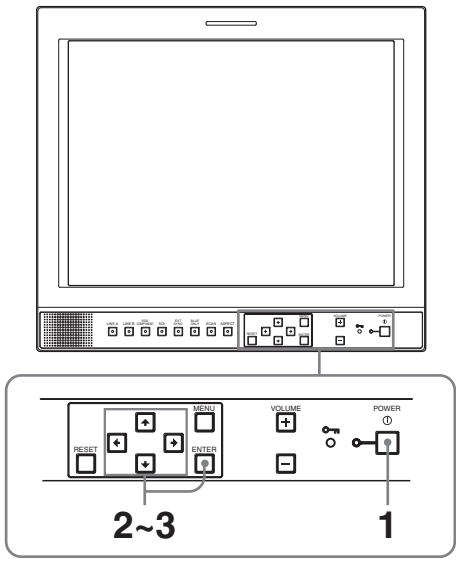
Selecting the Default Settings

When you turn on the unit for the first time after purchasing it, select the area where you intend to use this unit from among the options.

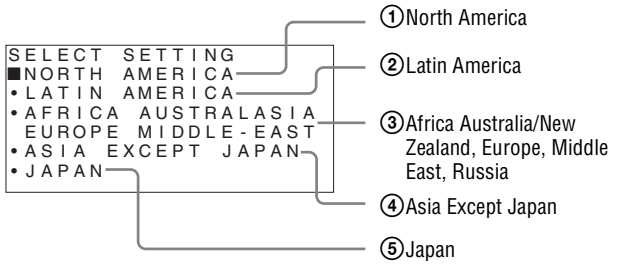
The default setting values for each area



		COLOR TEMP	COMP LEVEL	NTSC SETUP
①NORTH AMERICA		Low	BETA7.5	7.5
②LATIN AMERICA PAL&PAL-N AREA	ARGENTINA	Low	SMPTE	0
	PARAGUAY	Low	SMPTE	0
	URUGUAY	Low	SMPTE	0
NTSC&PAL-M AREA	OTHER AREA	Low	BETA7.5	7.5
③AFRICA AUSTRALASIA EUROPE MIDDLE-EAST		Low	SMPTE	0
④ASIA EXCEPT JAPAN	NTSC AREA	Low	BETA7.5	7.5
	PAL AREA	Low	SMPTE	0
⑤JAPAN		High	SMPTE	0

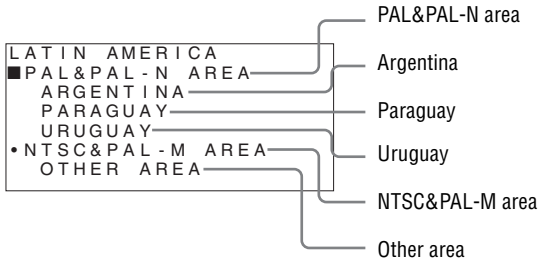


1 Press the POWER switch.
The power is turned on and the SELECT SETTING screen appears.

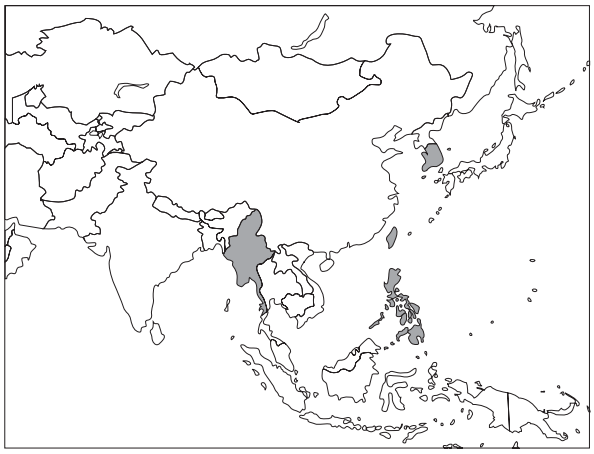


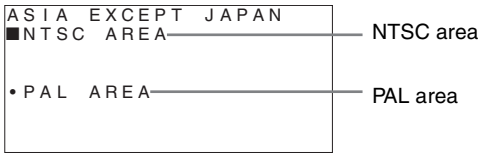
2 Press the ↑ or ↓ button to select the area where you intend to use the unit and press the → or ENTER button.
If you select either LATIN AMERICA or ASIA EXCEPT JAPAN, one of the following screens appears.

② If LATIN AMERICA is selected:



④ If ASIA EXCEPT JAPAN is selected:
Customers who will use this unit in the shaded areas shown in the map below should select NTSC AREA.
Other customers should select PAL AREA.





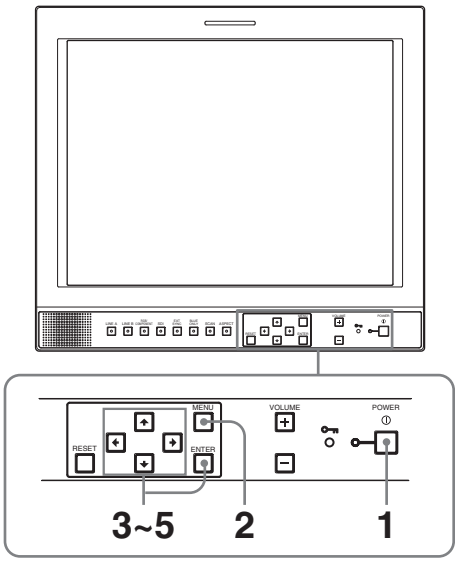
3 Press the ↑ or ↓ button to narrow the area further and then press the → or ENTER button.
The SELECT SETTING screen disappears and the menu item settings suitable for the selected area are applied.

Note

When you have selected the wrong area, set the following items using the menu.
COLOR TEMP (on page 16)
COMP LEVEL(on page 17)
NTSC SETUP (on page 17)
See “The default setting values for each area” (on page 12) on the setting value.

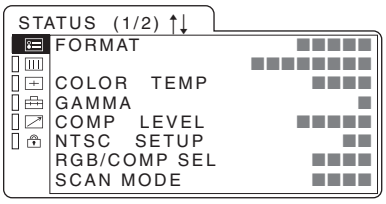
Selecting the Menu Language

You can select one of seven languages (English, French, German, Spanish, Italian, Japanese, Chinese) for displaying the menu and other on-screen displays.
The current settings are displayed in place of the ■ marks on the illustrations of the menu screen.

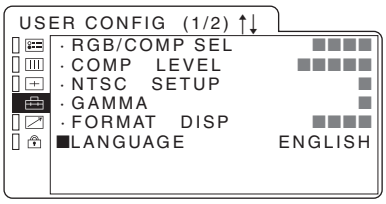


1 Press the POWER switch to turn on the unit.

2 Press the MENU button.
The menu appears.
The menu presently selected is shown as a yellow button.

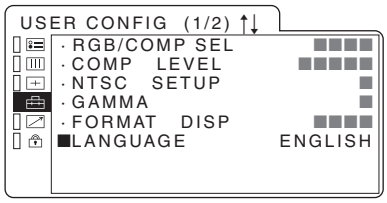


3 Press the ↑ or ↓ button to select the USER CONFIG 1/2 (User Configuration 1/2) menu, then press the → or ENTER button.
The setting items (icons) in the selected menu are displayed in yellow.



4 Press the ↑ or ↓ button to select "LANGUAGE," then press the → or ENTER button.
The selected item is displayed in yellow.

5 Press the ↑ or ↓ button to select a language, then press the ENTER button.
The menu changes to the selected language.



To clear the menu

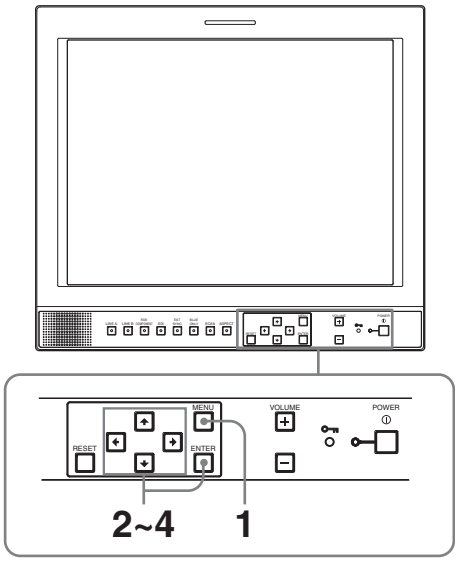
Press the MENU button.
The menu disappears automatically if a button is not pressed for one minute.

Using the Menu

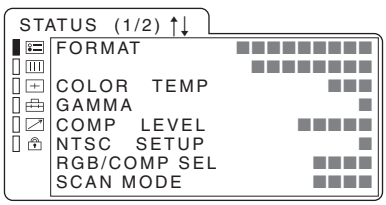
The unit is equipped with an on-screen menu for making various adjustments and settings such as picture control, input setting, set setting change, etc. You can also change the menu language displayed in the on-screen menu.

To change the menu language, see "Selecting the Menu Language" on page 13.

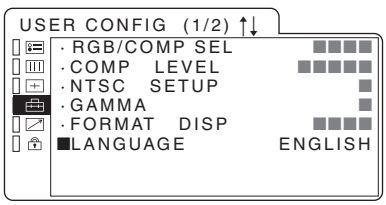
The current settings are displayed in place of the ■ marks on the illustrations of the menu screen.



1 Press the MENU button.
The menu appears.
The menu presently selected is shown as a yellow button.



2 Use the ↑ or ↓ button to select a menu, then press the → or ENTER button.
The menu icon presently selected is shown in yellow and setting items are displayed.



3 Press the ↑ or ↓ button to select the item, then press the → or ENTER button.
The item to be changed is displayed in yellow.

Note

If the menu consists of multiple pages, press ↑ or ↓ to go to the desired menu page.

4 Make the setting or adjustment on an item.

When changing the adjustment level:
To increase the number, press the ↑ button.
To decrease the number, press the ↓ button.
Press the ENTER button to confirm the number, then restore the original screen.

When changing the setting:
Press the ↑ or ↓ button to change the setting.
Press the ENTER button to confirm the setting.

Notes

- An item displayed in blue cannot be accessed. You can access the item if it is displayed in white.
- If the key inhibit has been turned on, all items are displayed in blue. To change any of the items, turn the key inhibit to OFF first.

For details on the key inhibit, see page 18.

To clear the menu

Press the MENU button.
The menu disappears automatically if a button is not pressed for one minute.

About the memory of the settings

The settings are automatically stored in the monitor memory.

To reset items that have been adjusted

Pressing the RESET button while you are adjusting any of the menu items resets the menu item to the previous setting.

Adjustment Using the Menus

Items

The screen menu of this monitor consists of the following items.

STATUS (the items indicate the current settings.)
- FORMAT
- COLOR TEMP
- GAMMA
- COMP LEVEL
- NTSC SETUP
- RGB/COMP SEL
- SCAN MODE
- DISPLAY
- OPTION

COLOR TEMP/BAL
- COLOR TEMP
- MANUAL ADJ

USER CONTROL
- CONTROL

USER CONFIG
- RGB/COMP SEL
- COMP LEVEL
- NTSC SETUP
- GAMMA
- FORMAT DISP
- LANGUAGE
- SCAN
- PIC DELAY MIN

REMOTE PARALLEL
- 1 PIN
- 2 PIN
- 3 PIN
- 4 PIN
- 6 PIN
- 7 PIN
- 8 PIN

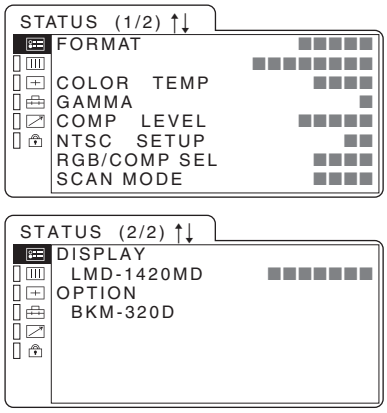
KEY INHIBIT

KEY INHIBIT

Adjusting and Changing the Settings

STATUS menu

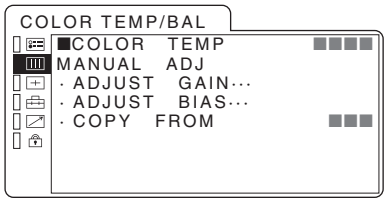
The STATUS menu is used to display the current status of the unit. The following items are displayed:



- Signal format
- Color temperature
- Gamma
- Component level
- NTSC setup
- RGB/COMP SEL
- Scan mode
- Display
- Option

COLOR TEMP/BAL menu

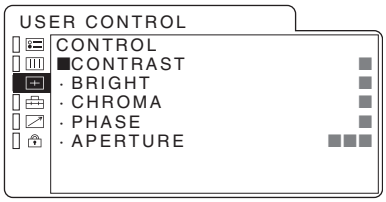
The COLOR TEMP/BAL menu is used for adjusting the picture white balance.
You need to use the measurement instrument to adjust the white balance.
Recommended: Konicaminolta color analyzer CA-210



Submenu	Setting
COLOR TEMP	Select the color temperature from among HIGH, LOW, LOW2 and USER setting. • HIGH (D93 or equivalent) • LOW (D65 or equivalent) • LOW2 (D56 or equivalent) • USER
MANUAL ADJ	If you set the COLOR TEMP to USER setting, the item displayed is changed from blue to white, which means you can adjust the color temperature. • **ADJUST GAIN...**: Adjusts the color balance (GAIN). • **ADJUST BIAS...**: Adjusts the color balance (BIAS). • **COPY FROM**: If you select HIGH, LOW or LOW2, the white balance data for the selected color temperature will be copied in the user setting.

USER CONTROL menu

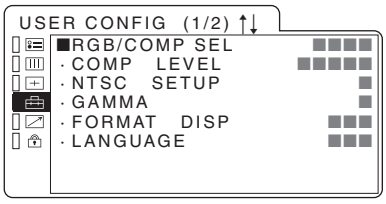
The USER CONTROL menu is used for adjusting the picture.
Items that cannot be adjusted depending on the input signal are displayed in blue.

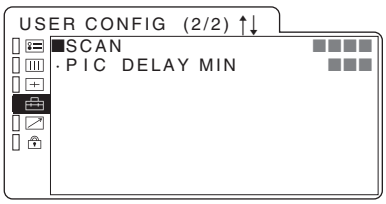


Submenu	Setting
CONTROL	You can adjust the picture. • **CONTRAST**: Adjusts the picture contrast. • **BRIGHT**: Adjusts the picture brightness. • **CHROMA**: Adjusts color intensity. The higher the setting, the greater the intensity. The lower the setting, the lower the intensity. • **PHASE**: Adjusts color tones. The higher the setting, the more greenish the picture. The lower the setting, the more purplish the picture. • **APERTURE:** Adjusts the picture sharpness. The higher the setting, the sharper the picture. For details of input signals and adjustable/setting items, see page 8.

USER CONFIG menu

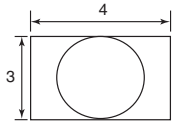
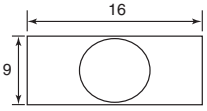
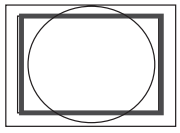
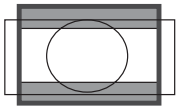
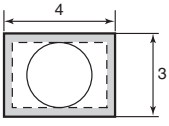
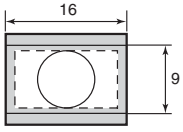
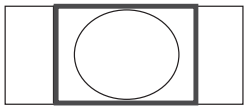
You can select a language, etc.
Items that cannot be adjusted depending on the input signal are displayed in blue.





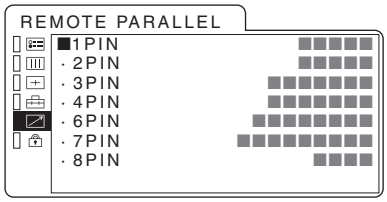
Submenu	Setting
RGB/COMP SEL	When a signal input via the IN (input) connector of the RGB/ COMPONENT connector is being monitored, based on the signal being input, select RGB or COMP.
COMP LEVEL	Select the component level from among three modes. • **SMPTE** for 100/0/100/0 signal • **BETA 0** for 100/0/75/0 signal • **BETA 7.5** for 100/7.5/75/7.5 signal
NTSC SETUP	Select the NTSC setup level from two modes. The 7.5 setup level is used mainly in North America. The 0 setup level is used mainly in Japan.
GAMMA	Selects the appropriate gamma mode. You can select from among 5 settings. When "3" is selected, the setting is roughly same as the gamma mode of the CRT (2.2).
FORMAT DISP	Select the display mode of the signal format. • **ON**: The format is always displayed. • **OFF**: The display is hidden. • **AUTO**: The format is displayed for about 10 seconds when the input of the signal begins.
LANGUAGE	You can select the menu or message language from among seven languages. • **ENGLISH:** English • **DEUTSCH:** German • **FRANÇAIS:** French • **ITALIANO:** Italian • **ESPAÑOL:** Spanish • **日本語 :** Japanese • **中文 :** Chinese
SCAN	Enlarge a 4:3 aspect ratio picture to a 16:9 aspect ratio picture. Select from "OFF" and "ZOOM" mode.
PIC DELAY MIN	Selects to set the delay by the picture processing to the minimum level when the signal is input. • **OFF:** Mode for giving precedence to the picture quality (recommended mode). It takes longer than "ON" for processing the picture. • **ON:** The processing time is short. As the line flicker is displayed in this mode, it is available for checking the line flicker of the telop work and so on.

Scan mode image

		Input	
			
Output	NORMAL SCAN (5 % OVERSCAN)		
	UNDER SCAN		
	ZOOM	–	

REMOTE PARALLEL menu

Select the PARALLEL REMOTE connector pins for which you want to change the function.
You can assign various functions to 1 to 4 pins and 6 to 8 pins. The following lists the functions you can assign to the pins.

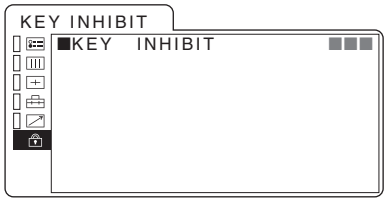


- – – (“– –”: No function is assigned.)
- LINE A
- LINE B
- RGB/COMP
- 16:9
- 4:3
- UNDER
- NORMAL
- ZOOM
- TALLY
- EXT SYNC
- BLUE ONLY
- SDI

Note

If you use the PARALLEL REMOTE function, you need to connect cables. For more details, see page 20.

KEY INHIBIT menu



You can lock the setting so that they cannot be changed by an unauthorized user.
Select OFF or ON.
If you set ON, all items are displayed in blue, indicating the items are locked.

Troubleshooting

This section may help you isolate the cause of a problem and as a result, eliminate the need to contact technical support.

- **The display is colored in green or purple** → By pressing RGB/COMPONENT button, select the correct input with the RGB/COMP SEL setting in the USER CONFIG menu.
- **The unit cannot be operated** → The key protection function works. Set the KEY INHIBIT setting to OFF in the KEY INHIBIT menu.

Specifications

Picture performance

LCD panel a-Si TFT Active Matrix
Picture size 14 type
283 × 212 × 354 mm (W/H/Diagonal) ($11^1/_4 \times 8^3/_8 \times 14$ inches)
Resolution 640 × 480 dots (VGA)
Viewing angle 85°/85°/85°/85° (typical)
Scan Under –3 %
Normal 5 %
Aspect ratio 4:3
Display color 16,200,000

Input/output connectors

Input

LINE A input connectors
Y/C input 4-pin mini-DIN (1)
VIDEO input
BNC type (1), 1 Vp-p ±3 dB, negative synchronization
AUDIO input
RCA pin (1), –5 dBu 47 kilohms or higher
LINE B input connectors
VIDEO input
BNC type (1), 1 Vp-p ±3 dB, negative synchronization
AUDIO input
RCA pin (1), –5 dBu 47 kilohms or higher
RGB/COMPONENT input connectors
BNC type (3)
RGB input 0.7 Vp-p ±3 dB, (Sync On Green, 0.3 Vp-p negative sync.)
Component input
0.7 Vp-p ±3 dB, (75 % chrominance standard color bar signal)
AUDIO input
RCA pin (1), –5 dBu 47 kilohms or higher
OPTION AUDIO input jacks
RCA pin (2), –5 dBu 47 kilohms or higher
EXT SYNC input connector
BNC type (1), 0.3 to 4 Vp-p negative polarity binary
PARALLEL REMOTE input terminal
Parallel remote
Modular connector 8-pin (1)

Output

LINE A output connectors
Y/C output 4-pin mini-DIN (1), Loop-through, with 75 ohms automatic terminal function
VIDEO output
BNC type (1), Loop-through, with 75 ohms automatic terminal function
AUDIO output
RCA pin (1), Loop-through
LINE B output connectors
VIDEO output
BNC type (1), Loop-through, with 75 ohms automatic terminal function
AUDIO output
RCA pin (1), Loop-through
RGB/COMPONENT output connectors
RGB/Component output
BNC type (3), Loop-through, with 75 ohms automatic terminal function
AUDIO output
RCA pin (1), Loop-through
EXT SYNC output connector
BNC type (1), Loop-through, with 75 ohms automatic terminal function
Built-in speaker output
0.5 W (mono)

General

Power AC100 – 240 V, 50/60 Hz
Power consumption
Maximum: approx. 51 W
1.2 A – 0.6 A
Dimensions Approx. 343 × 354 × 264 mm (not including the projection parts) ($13^5/_8 \times 14 \times 10^1/_2$ inches) (w/h/d)
Mass Approx. 6.8 kg (14 lb 16 oz)
Operating conditions
Temperature 0 °C to 40 °C (32 °F to 104 °F)
Recommended temperature
20 °C to 30 °C (68 °F to 86 °F)
Humidity 30% to 85% (no condensation)
Pressure 700 hPa to 1060 hPa

Storage and transport conditions

Temperature	–20 °C to 60 °C (–4 °F to 140 °F)
Humidity	0% to 90%
Pressure	700 hPa to 1060 hPa

Accessories supplied

AC power cord (1)
AC plug holder (1)
Instructions for Use (1)
CD-ROM (1)
Quick Reference (1)
When you First Use the Monitor (1)
Warranty Card (1)
Using the CD-ROM Manual (1)
Sales Companies Guide (1)

Optional accessories

Rack mount bracket MB-526
SDI input adaptor BKM-320D

Medical Specifications

Protection against electric shock:

Class I

Protection against harmful ingress of water:

Ordinary

Degree of safety in the presence of flammable anesthetics or oxygen:

Not suitable for use in the presence of flammable anesthetics or oxygen

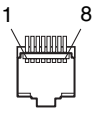
Mode of operation:

Continuous

Design and specifications are subject to change without notice.

Pin assignment

PARALLEL REMOTE terminal
Modular connector
(8-pin)



Pin number	Functions
1	Designating LINE A input signal
2	Designating LINE B input signal
3	Designating RGB/COMPONENT input signal
4	16:9
5	GND
6	4:3
7	Selecting under
8	Selecting normal

You can allocate functions using the REMOTE PARALLEL menu (see page 18).

Wiring required to use the Remote Control

Connect the function you want to use with a Remote Control to the Ground (Pin 5).

Video signal formats

The unit is applicable to the following signal formats.

Input						
System	**Total lines**	**Active lines**	**Frame rate**	**Scanning format**	**Aspect ratio**	**Signal standard**
575/50I (PAL)	625	575	25	2:1 interlace	16:9/4:3	EBU N10 (PAL: ITU-R BT.624)
480/60I (NTSC)	525	483	30	2:1 interlace	16:9/4:3	SMPTE 253M (NTSC: SMPTE 170M)

Output			
System	**Effective picture size**	**Frame rate**	**Scanning format**
575/50I (PAL)	640 × 480	50	Progressive
480/60I (NTSC)	640 × 480	60	Progressive

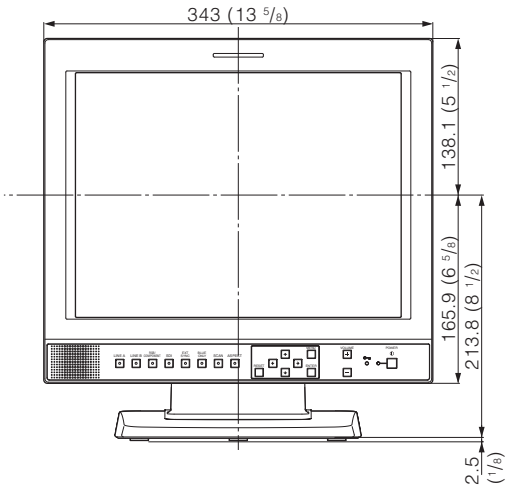
When an optional input adaptor is installed, the unit is applicable to the following signal formats.

When BKM-320D is installed

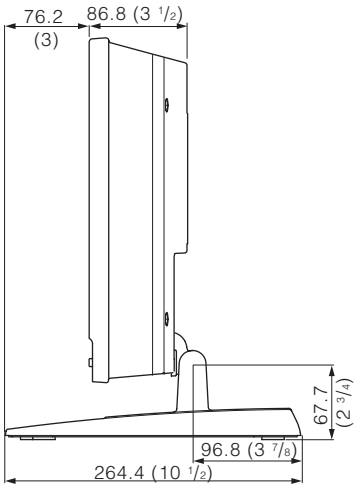
Input	
System	**Signal standard**
575/50I	ITU-R BT.656
480/60I	SMPTE 259M

Dimensions

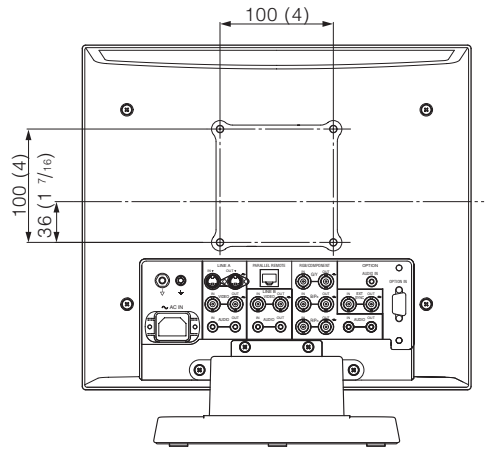
Front



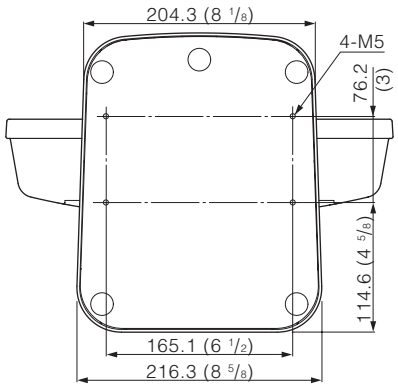
Side



Rear



Bottom



Unit: mm (inches)

http://www.sony.net/

Sony Corporation